

# COMPLETE SUGARCANE PACKAGE FOR FARMERS

 $\mathbf{BY}$ 

# **VST SHAKTI**







#### INTRODUCTION



Agriculture is undergoing a gradual shift from dependence on human & animal power to mechanical power because of increased cost to maintain and feed the animal as well as increasing scarcity of human labour. However the Mechanical power is largely used by big land holding farmers and still beyond the reach of small / marginal holding farmers.

Thus there is an urgent and strong need for taking farm mechanization to the small and marginal land holding farmers who hold 80% of total India land holding. They are unable to own high end machine due to their economic condition. To increase and support mechanisation to this segment there is a need of affordable machinery which can work though out the year with low initial investment and less operational / maintenance cost. This kind of innovative farm machinery package can bring mechanization and also make agriculture more sustainable & profitable. The expanded usage of internet and TV has also influenced the farmers to adapt mechanization.



#### MISSION & OBJECTIVES



- Increasing the reach of farm mechanization at affordable cost to small and marginal farmers and to the regions where availability of farm power is low.
- Offsetting adverse 'economies of scale' and 'higher cost of ownership' of high value farm equipment by promoting Innovative complete crop solution at affordable initial investment
- Passing on the benefit of hi-tech, high value and hi-productive agricultural machinery to farmers through creating hubs for such farm equipment.
- Promoting farm mechanization by creating awareness among stakeholders through demonstration and capacity building activities.
- Making agriculture as a profitable business.





VST Company has introduced an innovative & affordable complete sugarcane package for farmers. The package will cover the complete process, agricultural implements required, key benefits of using VST Shakti tractors for cultivation and economics of sugarcane farming through rural young entrepreneurs.





## WHY VST SHAKTI TRACTORS ARE MOST SUITABLE FOR SUGARCANE CULTIVATION



- ➤ It is India's First Small, 4 Wheel Drive Tractor A compact proven model.
- Light in Weight, Less Vibration with 3 cylinder engine.
- > Rotary widths: 900 mm (2.9 ft) & 1100 mm (3.6 ft)
- Turning Radius: With Brake 2.1 m (6.9 ft); Without Brake 2.5 m (8.2 ft)
- ➤ Best for Inter cultivation 1.2 m (4ft), 1.5 m (5 ft) & 1.8 m (6 ft) row spacing.
- ➤ Unique Japanese design; Wide network availability for Service & Spares, Good Resale Value.
- Less Soil compaction; Very Good Tilling; 25% increase in yield and Field Operation.
- Established Brand name with decades of good will among the Farming Community.
- ➤ Gear Box is best designed to match our Rotary.
- Lasts for a lifetime.





#### FIELD PREPARATION



#### **ROTARY**

- Simple in construction with robust design, appropriate for medium soil conditions
- The application includes: Soil conditioning, weed control, seedbed preparation & puddling in wet land.
- Most suitable for large & medium farmers and field preparation for wet and dry land crop.
- 28 tynes can be fitted J type for wet and L/straight for dry land.
- 2.5 ~ 3 acres of land can be covered in a day with average diesel consumption of 2.25 ~ 2.5 lts / hr
- Depth of Tilling is 100 (3.9 inches) ~ 125 (4.9 inches) mm.
- Available in 2 widths 900 mm (2.9 ft) & 1100 mm (3.6 ft)

#### REVERSIBLE PLOUGH

- This is well designed for ploughing.
- Basic functions are inverting, breaking and raising of soil.
- Can be used in tough conditions
- Tills the soil which has deep roots, unwanted plants, shrubs and weeds.
- Ease of rotating manually using a lever and wire rope.
- Shares are made of tough alloy steel, can be moved forward as and when wear takes place due to usage in field
- Long life is assured as 4 ploughs will be used alternately
- $5 \sim 6$  acres of land can be ploughed in a day
- Diesel consumption is  $1.5 \sim 1.75$  lts / hr









#### FIELD PREPARATION



#### **SUB - SOILING**

- Sub soiling is beneficial for deep tillage operation and also for improvement of saline and water logged soils.
- Plough with no mould-board, used to loosen the soil at some depth below the surface without turning it over.
- This implement is used to loosen and break up soil at depths below the level of a traditional ploughing, disk harrow or rototiller.
- A subsoiler is also used to till very dry and condensed soils. Crops planted in soil that is dry and condensed often fail due to inadequate nutrients and water.
- $3 \sim 4$  acres can be cultivated in a day with average diesel consumption of  $2 \sim 2.5$  lts / hr of operation.





#### FIELD PREPARATION



#### **FURROWING**

- It consists of rectangular frame made of mild steel angle or channel section, 3-point hitch assembly, shanks and ridger body.
- Body consists of two mould boards, share point and tie bars to vary the wingspan of ridger.
- The share point is made from medium carbon steel or low alloy steel, hardened and tempered and can be replaced with wear & tear.
- The ridger is operated on soil which has been already tilled, the share point penetrates in the soil, displaces it to both sides and a furrow is created.
- The soil mass between furrows forms a ridge. The depth of operation is controlled by hydraulic system of the tractor.
- Row spacing is adjustable.
- Covers ~ 0.75 acres in 1 hour.
- Weight of ridger ~ 230 kgs
- Consumption of diesel is  $2 \sim 2.5$  lts / hr.





### **PLANTING**



- The planter cuts the whole cane into pieces of required length.
- It applies insecticide on the cut piece, before planting.
- Makes two furrows at required spacing -0.9 m (3 ft) / 1.2 m (4 ft) / 1.5 m (5 ft).
- Plants the cut pieces into furrows, applies fertilizer into the soil and then covers them with soil.
- Rows spacing is adjustable.
- Consumption of diesel is  $2.5 \sim 3$  lts / hr.





#### **INTER CULTIVATION**



#### **REVERSE ROTARY**

- Specially designed for inter cultivation in row crops.
- Rigid in construction appropriate for medium soil conditions.
- The application included : Soil conditioning & weed control.
- $2.5 \sim 3$  acres of land can be covered in a day with average diesel consumption of  $2.25 \sim 2.5$  lts / hr.
- Depth of Tilling is 100 (3.9 inches) ~ 125 mm. (4.9 inches)
- 2 widths are available 750 (2.5 ft) & 990 (3.2 ft) mm.







### **SPRAYING**



- Sprayer is used for spraying pesticides and insecticides for pest control.
- Covers about 1.5 acres per hour of operation.
- Diesel consumption is about 2 lts / hr of operation.





#### **HAULAGE**



- Trailer of 3 tons capacity can be fitted for transportation.
- Primarily useful for transporting manure, chemicals, implements, sugarcane etc
- Types of Trailers:
- Standard 2.43 x 1.37 x 0.61 meter (8 x 4.5 x 2 feet) (L x W x H)
- Mechanical Tipping as well as hydraulic tipping.
- Water tanker of capacity 2000 ltrs can be fitted for carrying water.
- Average consumption of diesel is 2.5 lts / hr





## **INVESTMENT**



SL. NO.	IMPLEMENTS	INDICATIVE PRICE* (Rs.)
1	VST Shakti VT 224-1D AJAI 4WB Tractor	3,70,000
2	Cultivator	18,269
3	Rotary	45,000
4	Ridger	11,000
5	Sub Soiler Plough	14,000
6	Sprayer	1,55,000
7	Trailer	85,000
8	Total Cost	6,98,269

<sup>\*</sup>As on June 2016



#### TRACTOR MANUFACTURING PLANT AT HOSUR





## V.S.T. TILLERS TRACTORS LTD. (CIN-L34101KA1967PLC001706)

**Hosur Plant :** Plot No.39, Phase-1, Sipcot Industrial Complex, Mookandapalli, HOSUR – 635 126, Tamil Nadu.

**Regd. Office**: Plot No. 1, Dyavasandra Indl. Layout, Whitefield Road, Mahadevapura Post, Bangalore – 560 048. www.vsttillers.com



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